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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/895,559	06/28/2001	K. T. Hsiao	JCLA4020	6483

7590

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EXAMINER

YUFA, ALEKSANDR L

ART UNIT

PAPER NUMBER

2133

DATE MAILED: 09/22/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/895,559

Applicant(s)

HSIAO ET AL.

Examiner

Alex Yufa, Ph.D.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on 28 June 2001.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☒ Claim(s) 1,3 and 5 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 June 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Specification Objection***

1. The disclosure is objected to because of the following informalities:
  - a) the title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed, i.e., term "architecture" is not descriptive for "system, apparatus and/or device".
  - b) on page 2, line 6 the DUT is numbered as "130" instead of --10--;
  - c) Fig. 2B should be mentioned/marked as "prior art" or "conventional testing architecture instead of --testing architecture--.

Appropriate correction is required.

### ***Drawings Objection***

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description:
  - a) in Fig. 4A – pulses "9", "#10", "#11";
  - b) in Fig. 4B - steps "S21", "S22", "S23";
  - c) in Fig. 5 – lines "312", "314".

A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

***Claim Objections***

3. The claims 3, 5 are objected to because they include reference characters which are not enclosed within parentheses, i.e., limitation 8051.

Reference characters corresponding to elements recited in the detailed description of the drawings and used in conjunction with the recitation of the same element or group of elements in the claims should be enclosed within parentheses so as to avoid confusion with other numbers or characters which may appear in the claims. See MPEP § 608.01(m).

4. Claim 1 is objected to because of the following informalities: "a result sorting and display" (claim 1, line 10) has to be change to -- a result sorting and display device—by analogous limitation in claim 4, line2.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "architecture" in claims 1-5 is a relative term which renders the claim indefinite. The term "architecture" is not defined by the claim, the specification does not

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provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Where applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled in the art on notice that the applicant intended to so redefine that claim term. *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999). The term "architecture" in claims 1-5 is not descriptive, while the accepted meaning, i.e. "system, apparatus, device" can specify the invention. The term "architecture" is indefinite because the specification does not clearly redefine the term.

### ***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted prior art (hereinafter: admitted prior art).

Referring to claims 1, 4, admitted prior art describes the testing architecture for a semiconductor memory device comprising "a DUT 10" (page 2, line 1), "personal computer 20" (page 1, line 17) and "lines 12 and 132" (page 2, line 3 and page 2, line 7 respectively). Applicant's "microprocessor 310" and "SIPO 110 and buffer 120" (page 2, lines 7 and 9 respectively) in the admitted prior art (P.S. Buffer 120 can be included in the tester 130-personal computer 20) provide the analogous functional operation, i.e., when a start signal is received by the microprocessor, a clock signal is output from the microprocessor and transmitted to the semiconductor memory device so that a data storing signal is output from the semiconductor memory device to the microprocessor, wherein when the data storing signal is received by the microprocessor, the data storing signal is tested, compared, and a testing result signal is output; and a result sorting and display, used to output the start signal to the microprocessor, receive the result signal, and sort the result signal so as to display whether data stored by the semiconductor memory device is correct.

According claim 2, admitted prior art comprises PC 20, which obviously can perform the functions of receiving, testing and comparing the data.

Referring to claims 3, 5, admitted prior art do not limit the kinds of the data processing means inherently providing possibility to use any types of (IC) including 8051 integrated circuit (IC) too.

Additionally, claims 3, 5 are not functionally descriptive, considering that there are no disclosure what is the functional purpose of 8051(IC).

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made with the teaching of the admitted prior art by using faster circuitry, because one of ordinary skill in the art would simply use the modern faster circuitry (e.g., such as a microprocessor) for memory testing in order to provide minimization of the delay time, because it is well known and obvious to replace slow performing circuitry with the modern faster integrated means, such as microprocessor with 8051.

### ***Conclusion***

8. The following are suggested formats for either a Certificate of Mailing or Certificate of Transmission under 37 CFR 1.8(a). The certification may be included with all correspondence concerning this application or proceeding to establish a date of mailing or transmission under 37 CFR 1.8(a). Proper use of this procedure will result in such communication being considered as timely if the established date is within the required period for reply. The Certificate should be signed by the individual actually depositing or transmitting the correspondence or by an individual who, upon information and belief, expects the correspondence to be mailed or transmitted in the normal course of business by another no later than the date indicated.

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### **Certificate of Mailing**

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to:

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\_\_\_\_\_

Signature: \_\_\_\_\_

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Please refer to 37 CFR 1.6(d) and 1.8(a)(2) for filing limitations concerning facsimile transmissions and mailing, respectively.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alex Yufa, whose telephone number is 703-305-0715. The examiner can normally be reached on M-F 8:00am - 5:00pm.

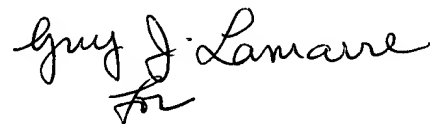
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert DeCady can be reached on 703-305-9595. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-2394.

Alex Yufa, Ph.D.  
Examiner  
Art Unit 2133

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A handwritten signature in black ink, appearing to read "Guy J. Lamare". The signature is fluid and cursive, with a small mark below the name.

Albert DeCady  
Primary Examiner